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By Maximizing Their Networks, Traditional Carriers Can Return to Profitability

■ By Nejib Ben-Khedher | *Ascend* Contributor

About 25 years ago, the deregulation of the U.S. market saw the emergence of numerous low-cost carriers competing with cutthroat fares in key markets. Traditional airlines witnessed record losses aggravated by the recession in the early '80s. At that time, the hub-and-spoke model, which just came to maturity, was questioned. The major airlines seemed to have no other alternative but to shrink their fleet and route structure, renegotiate their labor contracts, and reinvent themselves as low-cost. American Airlines, however, took a different path, utilizing the strengths of the airline network and introducing a plethora of innovations in the areas of marketing, information technology, fleet modernization, finance and labor cooperation. As a result, American Airlines enjoyed nearly two decades of financial and commercial strength, operating one of the most extensive domestic and international networks from its Dallas/Fort Worth and Chicago hubs.

Today, history is repeating itself. The current downturn in airline business, caused by the compounding effect of multiple crises, has resulted in more than US\$15 billion in combined losses

for U.S. carriers during the past two years. The temptation to move away from the hub system to a point-to-point, low-cost operation, again appears tempting to major airlines.

The U.S. network airlines offer air service to more than 100,000 origin and destination markets. Less than 20 percent of such services would be economically viable if served point-to-point. The situation is similar in Europe. Low-cost carriers are confined to high-density markets, where they can economically

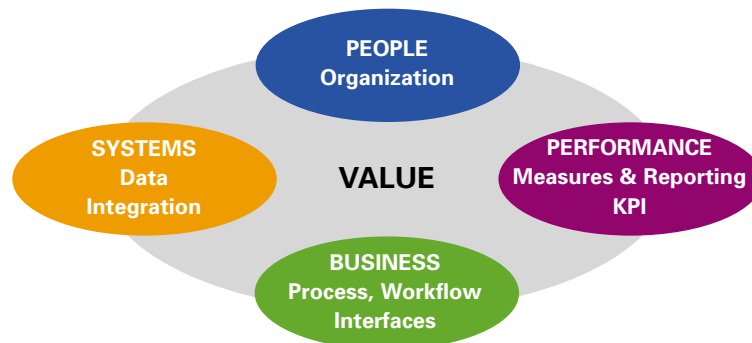
and revenue enhancement.

On the cost front, and specifically within the scheduling area, airlines are mainly focusing on simplifying their operations. Hub isolation, reduced fleet complexity at secondary stations and de-peaking hubs are among the initiatives intended to ensure a smoother and reliable operation and higher resource utilization. Also, capacity has been trimmed to better fit demand. It is, however, not enough to reduce the unit costs to the levels of their low-cost counterparts.

The battle is to be won on the revenue front, by better leveraging their O&D networks and taking advantage of an even wider O&D base through global alliances.

While the hub-and-spoke structure has been in place since the late '70s, only recently have network airlines started changing their approach to network planning, scheduling, pricing and revenue

management to align it with the O&D structure. Recent advances in software applications enabled the airlines to better capture data, forecast and optimize at an O&D level. In the late '90s, Sabre Airline Solutions introduced bid-pricing techniques in revenue management applications, designed algorithms to



To capture full value from the introduction of O&D-based decision-support systems, airlines have reviewed the underlying organization, processes, performance measures and interfaces.

offer high frequency. In addition, they have avoided major hubs where loyalty to the predominant airline plays an important factor. There is, therefore, a large, high-yield market left for network airlines.

The battle for profitability will be waged on two fronts: cost reduction



solve the fleet assignment problem at an O&D level and enhanced forecasting techniques to improve accuracy at a finer level of detail. The introduction of such tools at airlines, such as American Airlines and Air France, has proven to be critical in times like this. Air France, one of the first airlines to use Sabre Airline Solutions' bid pricing techniques on a portion of its network, has been one of the most successful traditional airlines during the current crisis. More than half of Air France traffic flowing at its Paris Charles de Gaulle hub is connecting traffic, and it is, therefore, instrumental to control the flow and not displace high-yield traffic. Lufthansa and British Airways are two other examples of successful introduction of O&D techniques. They both use the O&D capabilities of the *Sabre® AirFlite™* Fleet Manager to efficiently re-deploy their fleets to better match capacity to O&D demand.

British Airways returned to profitability in 2002 and added frequencies to its North American routes. Lufthansa posted 790 million in operating results (an increase of 172.4 percent year over year) for the first three quarters of 2002. It increased its winter capacity by 13 percent, reinstating some international routes, opening new ones and increasing frequency in key European markets. Its summer 2003 schedule will offer 8 percent more seat kilometers on intercontinental routes and 3 percent more SKOs on continental routes than in the summer 2002 timetable.

Today, a handful of network airlines have introduced O&D-based systems. Even with such airlines, the effort has focused on specific areas, such as revenue management. Sabre Airline Solutions estimates that the introduction of a fully integrated O&D approach can

deliver up to five times the return of only addressing O&D revenue management. Ensuring consistency between capacity decisions, inventory control decisions and O&D fares drastically reduces revenue leakage.

The alignment of the organization and business process with the O&D operational philosophy are critical elements to consider along with the introduction of the O&D decision-support tools. In addition, the introduction of new performance indicators is key to driving the right behavior. A fourth element of importance when introducing O&D systems is the integration and consistency across airline functions, as well as the definition of the right information flow and interfaces.

When implementing an O&D revenue management system, for example, airlines face several issues:

- Assignment of workaround O&D flows and not necessarily by traditional sectors (e.g., domestic/international),
- Emphasis on analytical skills and the assignment of a new breed of revenue management analysts focusing mostly on O&D forecasting,
- Closer integration with pricing (fare actions) and network planning (tactical fleet swaps) with common goals and measurements,
- Empowerment of analysts and establishment of quantitative measures to evaluate analyst and team performance,
- Move from top-down to two-way goal setting.

The introduction of an O&D-based system faces technical challenges: data collection, scalability (size of O&D data and complexity of optimization problems) and interfaces (e.g., reservations system). But the main challenge

for a successful O&D implementation remains the one of shifting operating philosophies. The senior management buy-in and the active participation of all levels of the organization are key to building the right foundation. External consultants can play an important role in ensuring the success of this venture. The consulting team needs to include a mix of subject matter experts who have been exposed to best practices and process consultants who can structure the change and assist the airline in managing it. The consulting team engages in visioning sessions with representatives from the airline's functional areas that are broadly impacted by the O&D change. Together, they determine the airline gaps versus the industry best practices and take

“The battle for profitability will be waged on two fronts: cost reduction and revenue enhancement.”

into account the specificity of the airline environment.

Network airlines have an opportunity to emerge from the current environment stronger than they did in the last two crises in the early '80s and early '90s. They will need to focus on better leveraging their unique network capabilities. The technology is available to enable them to do so. Adopting the right O&D operating processes will further enhance their chances to benefit from the marketing advantages of their network structure and global alliances. ■

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357,000 — Parts in a Boeing 737